DOCUMENT RESUME

ED 118 839 95 CE 006 382

AUTHOR McLean, Gary N.; Jones, L. Eugene
TITLE Robert E. Slaughter Research Award Studies 1975. Research Report. Number 3. Effectiveness of Model Office, Cooperative Office Education, and Office Procedures Courses Based on Employee Satisfaction and Satisfactoriness Eighteen Months after Graduation. [AND] A Study of the Content in Selected Textbooks for the Commonly Offered Basic Business Courses in Secondary Schools.
INSTITUTION McGraw-Hill Book Co., New York, N. Y. Gregg Div.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Dec 75
GRANT NIE-G-74-0089
NOTE 23p.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage
DESCRIPTORS Business Education; *Business Subjects; Comparative Analysis; *Course Evaluation; Data Analysis; Educational Research; Graduate Surveys; Job Satisfaction; Office Management; *Program Effectiveness; *Relevance (Education); Secondary Education; Tables (Data); *Textbook Evaluation
IDENTIFIERS Robert E Slaughter Research Award 1975

ABSTRACT

The two studies which received the 1975 Robert E. Slaughter Research Award in Business and Office Education are summarized in the document. The first paper, entitled "Effectiveness of Model Office, Cooperative Office Education, and Office Procedures Courses Based on Employee Satisfaction and Satisfactoriness Eighteen Months After Graduation," measures and compares the relevance of the three types of office education courses to actual on-the-job satisfaction and performance. The sample group surveyed consisted of 713 Minnesota secondary school graduates who were enrolled in the three courses; 548 responded to the questionnaires. It was concluded that any one of the three courses was a necessary, but probably interchangeable, part of the vocational business education program. The second paper, entitled "A Study of the Content in Selected Textbooks for the Commonly Offered Basic Business Courses in Secondary Schools," evaluates the content of the following courses: general business, consumer economics, business principles and management, business law, and economics. The study focuses on the idea that some of these courses might be repetitious and could be consolidated into fewer courses. Data were collected from textbooks published for the five courses. Concluding that extensive duplication exists, course consolidation and restructuring is suggested. (EC)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

FEB 1 1 1976

ED118839

ROBERT E. SLAUGHTER

RESEARCH AWARD STUDIES 1975

Research Report 3

CE006382

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

FOREWORD

The Robert E. Slaughter Research Award in Business and Office Education was established in 1974 by the Gregg Division of McGraw-Hill Book Company. Named in honor of business educator and retired McGraw-Hill executive Robert E. Slaughter, the award was created to stimulate and reward outstanding contributions to the advancement of business and office education through research.

A maximum of three $1,000 awards may be presented in any one year, and all levels of research are eligible, including doctoral dissertations, masters theses, funded research, institutional or group research, and independent research.

The award is administered by a management committee, consisting of Dr. Charles Hopkins of the University of Minnesota, chairman; Dr. Thomas Bicanich of the University of Pittsburgh; Dr. Harry Jasinski of Northern State College; and Dr. Robert Ristau of Eastern Michigan University.

Regional reading committees made up of two business educators from each of the five NBEA regions were established to read each of the studies submitted for competition. In addition, a national reading committee of three business educators read the top ten studies.

The two studies summarized in this research report were the top two studies as rated by the reading committees in 1975 and were awarded the 1975 Robert E. Slaughter Research Award.

B. Scot Ober, Ph.D.
Director of Research

RESEARCH REPORT
December, 1975 Number 3

ROBERT E. SLAUGHTER RESEARCH AWARD STUDIES 1975

Effectiveness of Model Office, Cooperative Office Education, and Office Procedures Courses Based on Employee Satisfaction and Satisfactoriness Eighteen Months After Graduation

GARY N. McLEAN
University of Minnesota
Minneapolis, Minnesota

A Study of the Content in Selected Textbooks for the Commonly Offered Basic Business Courses in Secondary Schools

L. EUGENE JONES
Northeast Louisiana University
Monroe, Louisiana

Gregg Division
McGraw-Hill Book Company

EFFECTIVENESS OF MODEL OFFICE, COOPERATIVE OFFICE EDUCATION, AND OFFICE PROCEDURES COURSES BASED ON EMPLOYEE SATISFACTION AND SATISFACTORINESS EIGHTEEN MONTHS AFTER GRADUATION[1]

Gary N. McLean

The major purpose of the study was to measure and compare the satisfaction and satisfactoriness of office employees eighteen months after graduation from APEX (Wright, 1972) model office (MO), cooperative office education (COE), and office procedures (OP) courses. An ancillary purpose was to determine differences, if any, among the three programs on a number of job and education-related variables. Nine specific questions were posed, with a number of sub-categories each.

Need for the Study

To bridge the gap between school and the office, there currently exist three major capstone experiences in office education—model office, traditional office procedures courses, and cooperative office education. Yet, in spite of the fact that model office and cooperative office education programs may be expensive to initiate and operate, little evaluation of their relative effectiveness in preparing office employees has been undertaken. The limited evaluation that has occurred used classroom criteria or was limited in the scope of comparisons made.

The present study provides measures of on-the-job performance derived from graduates of the three capstone experiences, criteria which reflect the major objectives of a vocational capstone experience better than the artificiality of in-class measures. In addition, using the Hopkins-McLean (1974) data, considerable evidence on the effect of personal characteristics on job satisfaction and satisfactoriness is available for examination in this study.

The accomplishment of these objectives will be beneficial to students and to counsellors in the selection of appropriate capstone experiences in office education for individual students based on their backgrounds and unique needs. In addition, school systems, state educational departments, and federal agencies will be better able to determine priorities for finances, curriculum development, personnel, etc., based on the effectiveness of various capstone experiences. Finally, the results of this study will permit the development of broad-based hypotheses for testing in other vocational fields and will add concrete evidence for optional educational programming considerations.

Procedures

The population of the study consisted of 1973 graduates from public secondary schools in the state of Minnesota who had been enrolled in OP, MO, or COE courses. These students had been identified in an earlier study conducted by Hopkins and McLean (1974). In that study, a stratified proportional random sample of fifteen schools having model office and fifteen schools having cooperative office education was selected. Intact classes were used, along with all twelfth-grade students enrolled in office procedures but not in model office or cooperative office education in the identified schools. Of the 877 students involved in the pretesting in 1972, 713 remained at the end of the school year. These 713 students, distributed almost equally among the three courses, were used in the present study.

[1]The project reported herein was performed pursuant to a grant (No. NIE-G-74-0089) from the National Institute of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the NIE, and no official endorsement by the NIE should be inferred.

The 1974 study provided the following information: student personal characteristics, socioeconomic status, vocabulary (used as an estimate of ability), subscores and total on *Business fundamentals and general information test* (NBEA, 1972), and subscores and total on an office work perceptions instrument (Rubald, 1973).

The 713 graduates were sent a personal questionnaire and a *Minnesota satisfaction questionnaire* (MSQ), (Weiss, 1967) eighteen months after graduation. Permission was sought to contact employers for completion of the *Minnesota satisfactoriness scales* (MSS) (Gibson, 1970). Following numerous follow-up attempts, 548 graduates responded with usable data for an overall response rate of 79.5 percent, with little deviation among the three groups. Of the graduates employed in offices, 20.5 percent did not grant permission for the MSS to be sent to their employers. For the 210 office-employed graduates granting such permission, 96.2 percent of the supervisors responded with completed instruments.

Data analyses included: one-way analysis of variance, by course; one-way and two-way analysis of covariance, based on course and socioeconomic status (SES), using the total scores on the two tests administered in 1973 as covariates; Pearson zero-order correlations among the independent and dependent variables; Chi-square analyses; and *t*-tests between obtained scores on the MSQ and MSS and scores for norm groups. Where significant *F*-values were determined in the analyses of variance, the Tukey *t*-test procedure was used to determine where differences existed within the groups. Means and standard deviations (sd) for each variable were also determined.

Findings and Conclusions

Based on the findings of this study, the following conclusions may be drawn:

1. Based on one-way analyses of variance, the COE graduates employed in office-related occupations are more satisfied overall with their jobs and obtain greater extrinsic satisfaction from them than do the OP students. In addition, the COE graduates employed full- and part-time also obtain greater intrinsic satisfaction from their jobs than do the OP students. The MO graduates' satisfaction is not different from either of the other two groups.

2. Based on two-way analyses of covariance, the COE graduates are the most satisfied on the intrinsic scale and least satisfied on the extrinsic scale. The MO graduates are the most satisfied on the extrinsic scale. In addition, socioeconomic status has no effect on satisfaction, nor was a significant interaction between SES and course found.

3. Based on both one-way analyses of variance and two-way analyses of covariance, no differences in overall satisfactoriness on any of the subscales exist based on course completed, SES, or interaction of SES and course.

4. Based on *t*-test comparisons, the graduates of the three capstone office education courses have the same degree of intrinsic satisfaction as an office clerk and a workers-in-general norm group. The OP group has the same extrinsic satisfaction as the two norm groups. However, both the MO and COE groups have greater general and extrinsic satisfaction than both norm groups.

5. In all of the normative comparisons on satisfactoriness, the norm groups scored significantly better than the graduates of the three courses on personal adjustment. On the other comparisons, the graduates of the three courses scored as well as or better than the norm groups. A number of significant differences in favor of the

graduates of the three programs existed, particularly in the comparison with the female clerical and sales norm group. These data suggest that the graduates from all three programs make satisfactory office employees in every area except personal adjustment.

6. Course completed will not affect salary, wage, or number of people supervised, based on the analyses of variance of this study.

7. COE students are much more likely to enter an office-related occupation or educational program than are graduates from the other two programs. OP students are least likely to pursue an office-related objective. Table 1 summarizes the employment status of respondents.

TABLE 1: STATUS SUMMARY OF RESPONDENTS WITH USABLE DATA
(Percents by Row)

Course	Full-Time Office Employed		Part-Time Office Employed		Not Employed In an Office		Total Usable Responses
	N	%	N	%	N	%	N
OP	60	33.0	13	7.1	109	59.9	182
MO	73	40.1	5	2.7	104	57.1	182
COE	102	55.4	11	6.0	71	38.6	184
Total	235	42.9	29	5.3	284	51.8	548

8. Relatively, there is a significant difference in the office jobs in which graduates are employed. OP graduates are more likely to be file clerks, stenographers, and bookkeepers than are the graduates of the other two courses; MO graduates are more likely to be secretaries; and COE graduates, typists. In absolute terms, graduates are most likely to classify themselves as secretaries, followed by typists.

9. MO graduates are more likely to pursue additional office education training than are the graduates of the other two courses.

10. The lack of both statistically and practically significant correlations precludes the opportunity to conclude that variables affect satisfaction, satisfactoriness, pay, and number of people supervised. Table 2 displays all of the obtained correlations across the three courses.

11. The only factor, by Chi-square analysis, appearing to affect whether or not a graduate was in a full- or part-time office occupation rather than in some other category was the educational attainment of the mother in COE and All Courses.

12. Almost none of the independent variables revealed differences between those graduates currently associated with the office and those not currently associated with the office. Many of the variables did show differences, however, for MO graduates, particularly on the total and subscores of the office work perceptions instrument. The *t*-test comparisons between those currently associated with office education and all other graduates, by course and across all courses, are shown in Table 3.

TABLE 2: PEARSON ZERO-ORDER CORRELATIONS BETWEEN SELECTED DEPENDENT AND INDEPENDENT VARIABLES FOR GRADUATES OF ALL THREE COURSES EMPLOYED FULL-TIME ONLY IN THE OFFICE

(N's vary for each variable; periods omitted)

Variable	Salary	No. People Supervised	MSQ Intrinsic	MSQ Extrinsic	MSQ General	MSS Performance	MSS Conformance	MSS Dependability	MSS Personal Adjustment	MSS General
Hours of Office Related Work Exp.	−01	−01	05	04	06	17*	10	02	05	13*
Hours of Non-office Related Work Exp.	09	01	−05	−02	−04	02	−06	01	17*	04
Vocabulary	10	−09	01	05	03	−00	−01	06	11	04
Job Knowledge-OWP	02	−08	−05	−02	−04	−06	04	03	07	02
Personal Qualifications-OWP	06	01	05	00	02	−01	−01	01	00	−01
Interpersonal Relations-OWP	07	04*	07	03	06	−00	03	07	09	04
Job Qualifications-OWP	12*	−07	03	06	04	−04	04	05	−07	−02
Total-OWP	09	−04	04	03	03	−04	04	06	02	01
Spelling-NBEA	07	−04	02	01	02	11	09	15*	08	12
Plurals-NBEA	−01	00	−01	−00	00	09	12	08	19**	14*
Grammar-NBEA	−04	−12*	02	07	06	06	05	08	04	07
Expression-NBEA	09	01	02	12*	05	18**	18**	10	12	18**
General Info-NBEA	10	04	−02	−04	−01	−07	−09	−01	−02	−07
Judgment-NBEA	02	03	−04	−01	−04	08	07	14	06	09
Arithmetic-NBEA	−08	−03	04	−04	02	12	02	15*	06	10
Memory-NBEA	06	−01	01	03	02	08	01	06	10	08
Total-NBEA	02	−03	02	02	03	10	04	11	08	10
Salary-NBEA	—	15*	02	15*	06	−04	03	07	12	03
No. of People Supervised	15*	—	11	−01	06	13*	07	08	10	09

*$p < .05$

**$p < .01$

TABLE 3: *t*-TESTS, MEANS, AND STANDARD DEVIATIONS ON SELECTED INDEPENDENT VARIABLES BETWEEN GRADUATES EMPLOYED FULL- OR PART-TIME IN AN OFFICE OCCUPATION OR IN AN OFFICE EDUCATION PROGRAM AND ALL OTHERS

Independent Variable	Full- or Part-Time Office Empl./Educ.			All Others			*t*-value
	N	Mean	sd	N	Mean	sd	
OP							
Hours of Related Work Experience	94	106.8	357.9	99	39.7	161.7	1.66
Hours of Unrelated Work Experience	94	485.8	637.5	99	472.0	577.5	.16
Vocabulary	94	10.9	1.7	96	10.3	2.5	1.83
Job Knowledge-OWP	94	11.2	.8	100	11.1	.9	.56
Personal Qualifications-OWP	94	13.7	.7	100	13.6	.7	1.37
Interpersonal Relations-OWP	94	11.8	1.0	100	11.7	1.3	.40
Job Qualifications-OWP	94	15.2	1.4	100	15.2	1.0	.05
Total-OWP	94	51.9	2.9	100	51.6	2.9	.76
Spelling-NBEA	94	12.2	1.9	100	11.5	2.4	2.23*
Plurals-NBEA	94	8.1	1.2	100	8.0	1.3	.46
Grammar-NBEA	94	10.7	2.6	100	10.4	2.6	.62
Expression-NBEA	94	2.5	1.4	100	2.3	1.5	.85
General Information-NBEA	94	11.9	2.7	100	11.9	3.0	−.04
Judgment-NBEA	94	3.5	1.1	100	3.4	.9	.74
Arithmetic-NBEA	94	7.2	2.8	100	6.6	2.9	1.65
Memory-NBEA	94	7.8	1.9	100	7.5	2.2	.97
Total-NBEA	94	63.6	8.8	100	61.0	10.9	1.81
MO							
Hours of Related Work Experience	101	76.0	243.3	95	78.8	418.7	−.06
Hours of Unrelated Work Experience	101	666.1	1006.2	95	805.5	1217.7	−.88
Vocaublary	101	10.4	2.5	95	9.9	2.3	1.59
Job Knowledge-OWP	102	11.4	.9	95	11.0	.9	2.92**
Personal Qualifications-OWP	102	13.9	.4	95	13.7	.7	2.49*
Interpersonal Relations-OWP	102	12.0	1.0	95	11.7	1.1	2.03*
Job Qualifications-OWP	102	15.3	.9	95	15.1	1.1	1.12
Total-OWP	102	52.5	1.9	95	51.5	2.7	3.14**
Spelling-NBEA	102	12.0	1.9	95	11.3	2.4	2.10*
Plurals-NBEA	102	7.6	1.5	95	7.4	1.6	.90
Grammar-NBEA	102	10.5	2.4	95	10.3	2.7	.56
Expression-NBEA	102	2.4	1.5	95	2.2	1.6	.82
General Information-NBEA	102	11.1	2.9	95	10.6	3.1	1.11
Judgment-NBEA	102	3.4	.9	95	3.5	.8	−.36
Arithmetic-NBEA	102	7.7	2.8	95	6.7	3.0	2.33*
Memory-NBEA	102	7.9	2.0	95	7.5	2.0	1.46
Total-NBEA	102	62.3	10.6	95	59.1	11.4	2.08*

Table 3 *(continued)*

Independent Variable	Full- or Part-Time Office Empl./Educ.			All Others			*t*-value
	N	Mean	sd	N	Mean	sd	
COE							
Hours of Related Work Experience	130	85.8	400.4	64	56.8	253.6	.61
Hours of Unrelated Work Experience	130	646.2	1002.4	64	626.8	1042.8	.13
Vocabulary	130	10.2	2.4	64	10.1	2.7	.36
Job Knowledge-OWP	130	11.0	1.3	64	11.2	1.0	−1.42
Personal Qualifications-OWP	130	13.5	1.1	64	13.3	1.2	1.15
Interpersonal Relations-OWP	130	11.6	1.3	64	11.2	1.2	2.18*
Job Qualifications-OWP	130	14.9	1.5	64	14.8	1.8	.72
Total-OWP	130	51.1	3.8	64	50.5	4.3	.93
Spelling-NBEA	130	11.7	2.5	64	11.7	2.6	−.21
Plurals-NBEA	130	7.4	1.8	64	7.3	1.8	.21
Grammar-NBEA	130	10.4	2.2	64	10.1	2.7	.91
Expression-NBEA	130	2.4	1.3	64	2.5	1.4	−.11
General Information-NBEA	130	10.9	3.5	64	10.1	3.4	1.50
Judgment-NBEA	130	3.1	1.2	64	3.3	1.0	−1.40
Arithmetic-NBEA	130	6.5	2.9	64	5.5	2.9	2.41*
Memory-NBEA	130	7.0	2.6	64	7.2	2.5	−.60
Total-NBEA	130	59.2	11.6	64	57.9	10.9	.76
All Courses							
Hours of Related Work Experience	325	88.8	345.0	258	58.3	300.2	1.14
Hours of Unrelated Work Experience	325	606.0	913.9	258	633.2	978.3	-.35
Vocabulary	325	10.5	2.2	255	10.1	2.5	1.95
Job Knowledge-OWP	326	11.2	1.0	259	11.1	1.0	.73
Personal Qualifications-OWP	326	13.7	.8	259	13.5	.9	2.02*
Interpersonal Relations-OWP	326	11.8	1.1	259	11.6	1.3	2.06*
Job Qualifications-OWP	326	15.1	1.3	259	15.0	1.3	.63
Total-OWP	326	51.8	3.1	259	51.3	3.2	1.86
Spelling-NBEA	326	11.9	2.2	259	11.5	2.4	2.17*
Plurals-NBEA	326	7.6	1.6	259	7.6	1.6	.30
Grammar-NBEA	326	10.5	2.4	259	10.3	2.6	1.04
Expression-NBEA	326	2.4	1.4	259	2.3	1.5	1.07
General Information-NBEA	326	11.3	3.1	259	11.0	3.2	.96
Judgment-NBEA	326	3.3	1.1	259	3.4	.9	−1.04
Arithmetic-NBEA	326	7.1	2.9	259	6.3	3.0	3.07**
Memory-NBEA	326	7.5	2.3	259	7.4	2.2	.42
Total-NBEA	326	61.5	10.7	259	59.5	11.1	2.13*

*$p < .05$
**$p < .01$

Recommendations

As a result of the findings of this study, the following recommendations are made:

1. Additional follow-up studies, such as the current one, should be undertaken three years and five years after graduation. Subsequent follow-ups, or researchers conducting a study similar to the current one, should collect complete data from all graduates, not just those associated with office employment. By the end of five years, students who entered higher education immediately on graduation would then be in the labor market.

2. Many of the variables typically used in the selection of students for capstone programs showed no relationship to the criterion measures. The data of this study suggest a need for reexamining student selection criteria and permitting open enrollment in the courses. This recommendation does not apply to specific skills, as they were not evaluated in the current study. Another option, of course, would be further research directed toward identifying variables that do make a difference and using them in student selection situations.

3. Personal adjustment was identified as the area in which graduates from all three courses fell short. Concerted effort needs to be given in capstone programs to improve this performance.

4. The lack of differences in satisfactoriness among the three programs suggests that each program is accomplishing the same goals and that the programs may thus be interchangeable. The comparisons with the norm groups showing comparable or better performance for the three capstone groups suggest that satisfactory employees are being graduated. It would appear, therefore, that any one of the capstone programs is a necessary part of a vocational business education program, but that the courses should also be considered as interchangeable.

5. On the other hand, the results of this study suggest that students enter the three courses with different objectives, and graduates from the three courses do, in fact, pursue different objectives. Thus, where sufficient student demand exists, at least two of the capstone courses should be made available to permit career exploration, to attract more students, and to prepare more employees for the office.

6. The results of this study should encourage specific research on optional capstone experiences in other vocational fields. If similar results are obtained, considerable financial resources might be reallocated to other components of the program. Specifically, the requirement on the part of some states for two-hour block programs may be challenged with additional research support.

7. As with any educational research, replication is encouraged. The nature of the replication might include office procedures courses from schools where cooperative or model office courses do not exist; or, the replication might include other types of model office courses; or, students from a broader geographic area might be used.

8. The results using the *Business fundamentals and general information test* call into question the validity of the test instrument. Major revisions may be needed on this test instrument and should be followed up with formal validity and reliability studies.

References

Gibson, D. L., Weiss, D. J., Dawis, R. V., and Lofquist, L. H. *Manual for the Minnesota satisfactoriness scales.* Minneapolis. Work Adjustment Project of the University of Minnesota, 1970.

Hopkins, C. R. and McLean, G. N. *Effectiveness of model office, cooperative office education, and office procedures in developing office decision-making abilities, in changing perceptions of the office world of work, and in developing a knowledge of business fundamentals and general business information.* Minneapolis: University of Minnesota, Project Number 4- -73 of Minnesota Division of Vocational-Technical Education, 1974.

National Business Education Association. *National business entrance tests: Business fundamentals and general information test.* Washington, D. C.: Author, 1972.

Rubald, M. J. Perceptions about office work of advantaged and disadvantaged students in office procedures and cooperative office education classes in high schools of the Twin Cities of Minnesota. Unpublished Master's thesis, University of Minnesota, 1973.

Weiss, D. J., Dawis, R. V., England, G. W., and Lofquist, L. H. *Manual for the Minnesota satisfaction questionnaire.* Minneapolis: Work Adjustment Project of the University of Minnesota, 1967.

Wright, L. E., Santos, O., Jr., and Jennings, W. E. *The office: Reality training through simulation.* St. Paul, MN: Minnesota Mining and Manufacturing Company, 1972.

A STUDY OF THE CONTENT IN SELECTED TEXTBOOKS FOR THE COMMONLY OFFERED BASIC BUSINESS COURSES IN SECONDARY SCHOOLS[1]

L. Eugene Jones

Five basic business courses are commonly offered in secondary schools: general business, consumer economics, business principles and management, business law, and economics. An issue has persisted in the professional literature for over a quarter of a century as to whether basic business education should continue to be offered in the multiple-course series or should be consolidated into fewer courses.

Statement of the Problem

The problem was a comprehensive study of the content in the five commonly offered basic business courses to determine whether the content in each basic business course is sufficiently unique to justify the continued offering of the current series of courses or whether the content is so repetitious that further consideration of the consolidation of content into fewer courses is warranted.

Delimitations, Limitations, and Assumptions

The validity of the study was dependent upon the textbooks being representative of the subject matter in the basic business field and upon the categories selected for classifying the data being appropriate for the type of analysis undertaken. The study was also limited by the researcher's ability to consistently classify the content into appropriate categories, by the consistency with which others could classify the content into the same categories, and by the consistency with which the textbook authors used comparable numbers of words to state the subject matter.

The study was based on the assumption that textbooks provide the primary source of subject matter for basic business courses. The source of data was delimited to the narrative found in the latest editions of basic business textbooks published by companies offering a separate text for each of the five courses.

Sources of Data

A survey of the publishing companies having textbooks listed in *Subject Guide to Books in Print 1973* for the basic business courses revealed that only two publishers, McGraw-Hill Book Company and South-Western Publishing Company, publish texts for all five courses. These latest editions of the textbooks constituted the sources of data:

Business Law

R. Robert Rosenberg and John E. Whitcraft, *Understanding Business Law* (5th ed.; New York: Gregg Division, McGraw-Hill Book Company, 1973).

McKee Fisk, Norbert J. Mietus, and James C. Snapp, *Applied Business Law* (10th ed.; Cincinnati: South-Western Publishing Company, 1972).

[1]Jones, L. Eugene. *A Study of the Content in Selected Textbooks for the Commonly Offered Basic Business Courses in Secondary Schools.* Unpublished doctoral dissertation, Indiana State University, 1975.

Business Principles and Management

Herbert A. Tonne, Sidney I. Simon, and Esby C. McGill, *Business Principles, Organization, and Management* (2nd ed.; New York: Gregg Division, McGraw-Hill Book Company, 1963).

Bernard A. Shilt, Kenneth E. Everard, and John M. Johns, *Business Principles and Management* (6th ed.; Cincinnati: South-Western Publishing Company, 1973).

Consumer Economics

Herbert M. Jelley and Robert O. Hermann, *The American Consumer: Issues and Decisions* (New York: Gregg Division, McGraw-Hill Book Company, 1973).

Roman F. Warmke, Eugene D. Wyllie, W. Harmon Wilson, and Elvin S. Eyster, *Consumer Economic Problems* (8th ed.; Cincinnati: South-Western Publishing Company, 1971).

Economics

Harold R. Leith and R. Pierce Lumpkin, *Economics USA* (New York: Gregg Division, McGraw-Hill Book Company, 1968).

John W. Kennedy and Arthur R. Olsen, *Economics—Principles and Applications* (8th ed.; Cincinnati: South-Western Publishing Company, 1972).

General Business

Ray G. Price, Vernon A. Musselman, and J Curtis Hall, *General Business for Everyday Living* (4th ed.; New York: Gregg Division, McGraw-Hill Book Company, 1972).

S. Joseph DeBrum, Peter G. Haines, Dean R. Malsbary, and Ernest H. Crabbe, *General Business for Economic Understanding* (10th ed.; Cincinnati: South-Western Publishing Company, 1971).

Procedures for Processing and Analyzing the Data

Using prior research findings and thought from the professional literature, five major topical areas were identified for classifying the content in the field of basic business. These were Business Problems Topics, Money Management Topics, Legal Topics, Business Management Topics, and Economic Topics. They were called *nuclear generic topics* because they form the nuclei of the basic business content and had their genesis in established fields of study and disciplines. A sixth category, Miscellaneous Topics, was added so that the classification of the content in the textbooks could be exhaustive.

It was observed that basic business content not only deals with the principles and concepts pertaining to the nature of the nuclear generic topics, but it also deals with the relationships which exist among these topics. Thus, the interrelationships which are discussed in the basic business content and which are derived from the contiguous associations of the nuclear generic areas were called *contiguous generic topics.*

In summary, nuclear generic content is that content which deals directly with the principles pertaining to the primary topics within a single generic area. Subject matter which compares, contrasts, illustrates, or relates principles pertaining to primary topics from two or more generic areas is contiguous generic content.

A total of 21 major categories (6 nuclear generic and 15 contiguous generic categories) were used to classify the topics found in the selected textbooks. The nuclear generic categories were:

1. Business Problems Topics
2. Money Management Topics
3. Legal Topics
4. Business Management Topics
5. Economic Topics
6. Miscellaneous Topics

The contiguous generic categories were:

1. Money Management-Business Problems Topics
2. Legal-Business Problems Topics
3. Business Management-Business Problems Topics
4. Economic-Business Problems Topics
5. Miscellaneous-Business Problems Topics
6. Legal-Money Management Topics
7. Business Management-Money Management Topics
8. Economic-Money Management Topics
9. Miscellaneous-Money Management Topics
10. Business Management-Legal Topics
11. Economic-Legal Topics
12. Miscellaneous-Legal Topics
13. Economic-Business Management Topics
14. Miscellaneous-Business Management Topics
15. Miscellaneous-Economic Topics

The nuclear topics were next divided into 75 subtopics. These subtopics and their possible combinations were used to construct a coding matrix for classifying the content in the texts.

The content in the texts was divided into context units or topics. Each context unit was assigned a category code number and the words in each context unit were counted.

A data card containing the book identification number, page number, context unit number, category code number, and word count was punched for each context unit. A computer was used to process the data for each course, each text, and each publisher. The data were analyzed on the bases of the 21 nuclear and contiguous categories only. Three types of statistical treatments were used: (1) summations, (2) proportions, and (3) tests of significance of differences.

Analysis of the Problem

In order to conclude that basic business content should continue to be offered in the current series of separate courses, the following findings were necessary:

1. The contiguous generic topics areas are permutative, that is, the order of the relationship of two nuclear generic topics constituting a particular generic topic can be determined. For example, a passage in a textbook dealing with the relationship of a legal topic and an

economic topic is considered contiguous generic content. It is permutative contiguous content if it can be determined that it discusses the legal aspects of an economic topic *or* that it discusses the economic aspects of a legal topic.

2. Each basic business course has a concentration of subject matter in a single nuclear generic area.

3. Each basic business course has only contiguous generic areas which are related to the expected single nuclear generic area.

4. The majority of the content in each course falls within the nuclear generic areas.

5. Statistically, there is a significant difference in the content among the basic business courses.

On the other hand, to conclude that further consideration should be given to the consolidation of the basic business content into fewer courses, the following findings were required:

1. The content of the contiguous generic areas is combinative, that is, the direction of the relationship existing between two nuclear generic topics constituting a contiguous generic topic cannot be determined.

2. Each of the courses has a fairly equal distribution of content in all the nuclear generic areas.

3. Each of the basic business courses includes all of the contiguous generic areas.

4. The majority of the content in each course falls within the contiguous generic areas.

5. Statistically, there is no significant difference in the content among the basic business courses.

Summary Of The Findings

With one card being punched for each context unit, a total of 17,265 data cards were punched and processed. A summary of the number of context units, the number of words, and the mean of words in the context units of each textbook appears in Table 1.

The number of context units ranged from a low of 1,227 in *Business Principles, Organization, and Management* (Gregg/McGraw-Hill) to a high of 2,558 in *Consumer Economic Problems* (South-Western). The mean for the number of context units in the textbooks was 1,726.5.

The textbook published for each course by Gregg/McGraw-Hill had fewer context units than did the textbook published by South-Western.

The ten textbooks analyzed contained a total of 1,377,997 words. The number of words per textbook ranged from a low of 104,523 in *General Business for Economic Understanding* (South-Western) to a high of 157,276 in *Economics USA* (Gregg/McGraw-Hill). The mean number of words per textbook was 137,799.7. As might be expected, both textbooks for the general business course which is commonly offered in grades 9 and 10 contained fewer words than did the texts for the other courses which are more frequently offered in grades 11 and 12.

When the number of words in each textbook was divided by the number of context units in the book to find the mean of words in the textbook's context units, the range in the mean was from 49.92 to 115.40 words. The textbook having the lowest mean of words per context unit was *General Business for Economic Understanding* (South-Western). The one with the highest was *Business Principles, Organization, and Management* (Gregg/McGraw-Hill).

TABLE 1: NUMBER OF CONTEXT UNITS, NUMBER OF WORDS, AND MEAN OF WORDS IN CONTEXT UNITS BY TEXTBOOK

Textbook Title	Publisher	Number of Context Units	Number of Words	Mean of Words in Textbook's Context Units
Understanding Business Law	Gregg/McGraw-Hill	1,283	123,175	96.01
Applied Business Law	South-Western	1,602	150,933	94.22
Business Principles, Organization, and Management	Gregg/McGraw-Hill	1,227	141,590	115.40
Business Principles and Management	South-Western	1,392	142,090	102.08
The American Consumer. Issues and Decisions	Gregg/McGraw-Hill	1,423	142,474	100.12
Consumer Economic Problems	South-Western	2,558	153,753	60.11
Economics USA	Gregg/McGraw-Hill	1,844	157,276	85.29
Economics—Principles and Applications	South-Western	2,290	152,342	66.52
General Business for Everyday Living	Gregg/McGraw-Hill	1,552	109,841	70.77
General Business for Economic Understanding	South-Western	2,094	104,523	49.92
Total Number of Context Units, Total Number of Words, and Mean of Words in All Textbooks Combined		17,265	1,377,997	79.81

The overall mean—that is, the average number of words for a context unit in the ten textbooks—was 79.81 words. In each case, the textbook published by South-Western for each course had a lower mean than did the textbook published by Gregg/McGraw-Hill.

The number of words in the context units is an indicator of the amount of discussion provided for a single topic before another topic is introduced. This means that the content in some textbooks switched topics frequently; the content in others gave more treatment to a topic before moving to a second one.

A summary of the proportions of generic content found in the textbooks for each of the courses and in all the textbooks combined is shown in Table 2.

The findings did not form a clearcut pattern that irrefutably supported either the position that basic business education should continue to be offered as a series of separate courses or the position that they should be consolidated into fewer courses.

Certain findings indicate there is some merit in offering the current series of five basic business courses:

1. *Some contiguous content was permutative.* During the testing of a coding matrix based on a classification system accommodating permutations, it was found that the direction of some of the relationships which existed between the topics in the contiguous generic content could be determined.

TABLE 2: SUMMARY OF PROPORTIONS OF GENERIC CONTENT FOUND IN TEXTBOOKS FOR EACH COURSE AND IN ALL TEXTBOOKS COMBINED

Type of Generic Category	Generic Category	Percentages					
		Business Law Textbooks	Business Principles Textbooks	Consumer Economics Textbooks	Economics Textbooks	General Business Textbooks	All Textbooks Combined
Nuclear Generic Categories	11—Business Problems Topics	6.41	4.19	12.48	2.55	14.98	7.72
	22—Money Management Topics	1.04	.67	9.41	2.93	14.28	5.25
	33—Legal Topics	34.19	.79	3.12	.08	1.50	7.88
	44—Business Management Topics	4.08	52.43	4.13	8.93	7.44	15.66
	55—Economic Topics	.30	2.06	8.75	30.68	9.15	10.68
	66—Miscellaneous Topics	.31	.32	.61	4.02	1.13	1.34
	Total Nuclear Generic Content	46.33	60.46	38.50	49.19	48.48	48.53
Contiguous Generic Categories	12—Money Management-Business Problems Topics	2.25	2.26	10.27	2.37	8.40	4.99
	13—Legal-Business Problems Topics	19.10	3.30	7.38	.99	5.72	7.17
	14—Business Management-Business Problems Topics	1.43	12.95	2.84	1.58	4.26	4.57
	15—Economic-Business Problems Topics	.07	.24	1.59	2.91	2.05	1.37
	16—Miscellaneous-Business Problems Topics	1.64	1.20	6.57	2.56	6.34	3.55
	23—Legal-Money Management Topics	6.95	.69	2.82	.18	2.20	2.51
	24—Business Management-Money Management Topics	.77	2.81	4.82	1.39	4.29	2.76
	25—Economic-Money Management Topics	.05	.30	2.55	3.05	2.43	1.68
	26—Miscellaneous-Money Management Topics	.46	.53	7.73	1.92	3.84	2.91
	34—Business Management-Legal Topics	14.33	4.36	2.28	.95	1.88	4.75
	35—Economic-Legal Topics	.44	.50	1.03	2.93	.41	1.11
	36—Miscellaneous-Legal Topics	4.70	.26	.37	.45	.62	1.26
	45—Economic-Business Management Topics	.10	2.79	3.07	6.34	2.08	3.00
	46—Miscellaneous-Business Management Topics	.97	6.10	2.49	3.36	2.36	3.11
	56—Miscellaneous-Economic Topics	.41	1.25	5.69	19.90	4.64	6.73
	Total Contiguous Generic Content	53.67	39.54	61.50	50.81	51.52	51.47
	Total Generic Content	100.00	100.00	100.00	100.00	100.00	100.00

2. *Four of the five courses had a concentration of nuclear generic content in a single, expected nuclear generic area.* Business principles and management textbooks had a concentration of content in the Business Management Topics (52.44 percent), business law textbooks had a concentration in Legal Topics (34.19 percent), economics textbooks had a concentration in Economic Topics (30.68 percent), and general business textbooks had a concentration in the Business Problems Topics (14.98 percent). While all the concentrations except the business principles and management textbooks represented less than 50 percent of the total content in the textbooks, the concentrations did represent a majority of the nuclear generic content in the business principles and management textbooks (86.74 percent), in the business law textbooks (73.80 percent), and in the economics textbooks (62.37 percent).

3. *Four of the five courses had a concentration of contiguous generic content in the contiguous generic categories related to the expected nuclear generic area.* Only consumer economics did not have a concentration of contiguous generic content in the contiguous categories related to the expected nuclear generic category. While the proportions in the business law textbooks (45.52 percent), economics textbooks (35.06 percent), business principles and management textbooks (29.01 percent), and general business textbooks (26.77 percent) represented less than half of the total content in the textbooks, they did in all cases represent a majority of the nuclear generic content (84.81, 69.00, 73.37 and 51.96 percent respectively).

4. *Slightly less than half (48.53 percent) of the total content was nuclear generic content.* While three courses—business law (46.33 percent), economics (49.19 percent), and general business (48.48 percent)—had only slightly less than half the content in the nuclear generic areas, business principles and management had 60.46 percent in these areas. Consumer economics had 38.50 percent.

5. *Statistically, a significant difference at the .01 level existed in almost all the proportions of generic content categories when compared by textbooks, by course, and by publisher.* When the textbooks for one course were compared with the textbooks for each of the other courses using z-scores, seven of the course comparisons were significantly different at the .01 level in all the proportions of generic content in all the categories. Only three course comparisons had proportions in generic categories which were not significantly different. Of these, the largest number of categories in the course comparison having no significant difference was three.

Other findings supported the position that further consideration should be given to the consolidation of content into fewer courses.

1. *Some contiguous content was combinative.* The direction of the relationships among the topics in the contiguous generic areas could not be determined in many instances; therefore, it was necessary to use a combinative classification system.

2. *Each of the five courses had content in all six of the nuclear generic areas.* The nuclear generic content was widely distributed among the nuclear generic categories with the widest distribution in the consumer economics textbooks and the least in the business principles and management textbooks. This wide distribution of content in all the nuclear generic areas indicates that adjacent overlap—that is, duplication of content among the courses—does exist among all the courses. Comparatively large proportions of content in each of the nuclear generic categories were found in two or more courses.

3. *Each of the five courses had content in all 15 contiguous generic areas.* The contiguous generic content was widely distributed among the nuclear generic categories. While

the contiguous generic content tended to be concentrated in the categories that were related to the expected nuclear generic category for each course, some of the unrelated contiguous generic categories contained proportions of content which were as large as some of the related ones. The wide distribution of content in all the contiguous generic areas indicates that adjacent overlap also exists among all the courses. Like the nuclear content, comparatively large proportions of content in each of the contiguous categories were found in two or more courses.

4. *A majority of the content in the textbooks was contiguous generic content.* The proportion of contiguous generic content represented a majority (51.47 percent) of the total content. This reflects a substantial amount of overlap of content within the courses.

Conclusion

While the findings are mixed, those in favor of the position that further consideration should be given to the consolidation of basic business content into fewer courses outweigh those in favor of the continued offering of the current series of separate basic business courses. The fact that the content in the field of basic business is almost evenly divided between nuclear and contiguous generic content and the fact that the content within each course is widely distributed among all the nuclear and contiguous generic categories indicates that there is extensive overlap both within and among the courses. The large proportions of contiguous content indicate that substantial overlap exists within the courses. The wide distribution of both nuclear and contiguous generic content in each course affirms that considerable overlap exists among the courses. In addition, the nature of the contiguous content is both permutative and combinative.

Since the present basic business courses have extensive duplication of content, a further consolidation of the content into fewer courses seems to be a possibility; and further consideration of this possibility is warranted.

Observations

Several findings which resulted from the analysis of the textbook content, but which were not relevant to the solution of the problem in this study, are interesting observations.

One of these observations is that the textbook content was confined mainly to five nuclear generic categories—Business Problems Topics, Money Management Topics, Legal Topics, Business Management Topics, and Economic Topics—and to the 15 contiguous generic categories. Only 1.33 percent of the combined content fell in Miscellaneous Topics. Similarly, each of the courses had very small proportions in the Miscellaneous Topics category. This suggests that the five nuclear generic areas and the contiguous generic areas constitute a substantial and cohesive body of knowledge for basic business education.

A second observation was that, while there is duplication of generic topics among the courses, the overlap is more extensive in some textbooks than in others. The difference in proportions of generic content found in the textbooks provides the teacher with alternatives in choosing a textbook. The proportions indicate the extent to which topics in the various areas are covered. If a teacher wishes to stress certain topics, the proportions reported in this study can serve as a guide to selecting textbooks for further examination.

The business principles and management textbooks contained the largest proportions of unique content. As indicated by the proportions of content found in the expected nuclear generic area and the related contiguous generic areas, the business principles and management textbooks contained much content in these topical areas which was not found in the

other texts. Over half of the total content in the textbooks was in the expected nuclear generic category, Business Management Topics. The content in the contiguous generic areas closely corresponded to those categories which related Business Management Topics to the other nuclear generic topics.

The consumer economics textbooks contained the widest and most even distributions of both nuclear and contiguous content among the generic categories. These textbooks are most representative of the total basic business content.

Implications and Recommendations

The findings in this study, which led to the conclusion that further consideration of the consolidation of content is warranted, also lead to certain implications about the nature of the restructuring of basic business content which should probably occur.

An overall implication of the study is that attention should be given to restructuring both the content within and among the basic business courses. Finding that very little content—only 1.33 percent of the total content—was classified in the Miscellaneous Topics category implies that the content in the basic business field constitutes a unified and cohesive body of knowledge. Thus, the need is not so much for adding new knowledge to the field of basic business as it is for refining the existing knowledge.

Finding that the content in all the basic business textbooks combined was almost equally divided implies that attention should probably be given to the refinement of both the nuclear and contiguous generic content. Refinement of the content will probably come (1) through careful identification and selection of topics, principles, and concepts which are imperative for understanding the nature of the five nuclear generic areas—business law, business management, money management, economics, and business problems—and (2) through careful discernment and statement of the relationships which exist among the nuclear generic areas and thus constitute the subject matter for the contiguous generic areas.

Continued efforts must be made to identify and to select the knowledges, attitudes, and skills an individual must have in the areas of business law, economics, business management, money management, and business problems if an individual is to participate efficiently and effectively in business activity. But just improving the foundational subject matter in the nuclear areas will not be sufficent. Equally important is the understanding of the relationship of each nuclear generic area to the others. In other words, understanding the nature of business problems is not enough for conducting business affairs effectively and efficiently. Such isolated knowledge of business problems is seldom needed; business problems are generally encountered in some particular context. Thus, in addition to understanding the nature of business problems, an individual also needs to understand the legal aspects of the problems, the economic aspects of the problems, the money management aspects of the problems, and the business management aspects of the problems. Improvements will be made in the structure of the basic business content as refinements in these relationships are made.

Due to the high degree of repetition, the content in the five basic business courses could probably be offered in fewer courses. Two courses would probably be sufficient for offering basic business as general education for all secondary school students. A possible sequence might be a two-semester basic business course for ninth- and tenth-grade students and a two-semester advanced basic business course for eleventh- and twelfth-grade students.

The beginning basic business course could be concerned primarily with the fundamental nature of common business problems, of business law, of economics, of business management, and of personal money management. The concern could be to build foundations in the five nuclear areas upon which advanced learning could take place.

The advanced basic business course could probably be devoted to the review and extension of the fundamental principles taught in the first course plus the development of the relationships which exist among the nuclear areas. Thus, the course might include:

1. The review and extension of business law principles.
2. The review and extension of economic principles and the relationship of these to the business law principles.
3. The review and extension of business management principles and the relationship of these to the business law principles and the economic principles.
4. The review and extension of money management principles and the relationship of these to the business law principles, the economic principles, and the business management principles.
5. The review and extension of the nature of business problems and the relationship of these to the business law principles, the economic principles, the business management principles, and the money management principles.

The organization for such an advanced basic business course is illustrated in Figure 1.

<table>
<tr><td colspan="5">Review and Extension of the
Fundamentals of Business Law</td></tr>
<tr><td colspan="4">Review and Extension of the
Fundamentals of Economics</td><td>Legal
Aspects
of
Economics</td></tr>
<tr><td colspan="3">Review and Extension of the
Fundamentals of Business Management</td><td>Economic
Aspects
of
Business
Management</td><td>Legal
Aspects
of
Business
Management</td></tr>
<tr><td colspan="2">Review and Extension of the
Fundamentals of Money Management</td><td>Business
Management
Aspects of
Money
Management</td><td>Economic
Aspects
of
Money
Management</td><td>Legal
Aspects
of
Money
Management</td></tr>
<tr><td>Review and Extension
of the Fundamentals
of Business Problems</td><td>Money
Management
Aspects of
Business
Problems</td><td>Business
Management
Aspects of
Business
Problems</td><td>Economic
Aspects
of
Business
Problems</td><td>Legal
Aspects
of
Business
Problems</td></tr>
</table>

Figure 1: Diagram of the Organization for a Proposed Advanced Basic Business Course

It was found that 81.45 percent of the content in the business principles and management textbooks fell in the expected nuclear generic category and the related contiguous generic categories. This percentage seems disproportionately high when compared to the percentage of content falling in the expected nuclear generic categories and related contiguous generic categories in the textbooks for other courses. This may indicate the content pertaining to Business Management Topics includes specialized information needed only by those students preparing for jobs or occupations where a specialized knowledge of business management principles is needed as well as general information about business management that is needed by all students. If this is the case, there is probably sufficient content to offer a one-semester course for those students needing a specialized knowledge of business management principles.

Because further consideration of the consolidation of basic business content into fewer courses is warranted and because this consolidation requires the restructuring of content both within and among the courses, further research and developmental work is recommended.

The needed research includes comprehensive studies of basic business content using:

1. Other basic business textbooks not included in this study as sources of data.
2. Sources of data other than textbooks (such as syllabi, courses of study, and supplementary materials).
3. Facts, principles, concepts, and other categories as units of analysis.

The first two recommended studies would help determine whether the textbooks used in this study were representative of the content in basic business education. The last one would help determine whether the same principles and concepts are covered in the topical areas which this study found were duplicated among the courses.

In the way of developmental work, business educators need to devise a better taxonomy for basic business content. The major topics used in this study to classify the content were those identified from research findings and thought in the professional literature. They bear a close resemblance to those topics found in the established fields of study or disciplines from which they were derived. While these major topics constitute the main body of knowledge in basic business education, an alternative taxonomy of topics needs to be developed. Such a taxonomy should classify the content into categories which are more parallel than the traditional ones and should allow for innovation in sequencing and structuring basic business content.

Finally, there is a real need for business educators to plan, implement, and evaluate basic business education programs which make it feasible for students to have a more balanced approach to the study of all the content areas of basic business than is now possible with the multiple-course programs. To consolidate the content into fewer courses would also require the reorganization of instructional materials and probably the development of new ones. By having a two- or three-course sequence, basic business could be better fitted into crowded high school curricula and would more likely become a required part of all students' general education.

Additional copies of this research booklet may be obtained by writing to the Director of Research, Gregg/McGraw-Hill, 1221 Avenue of the Americas, New York, NY 10020.